

REMARKS

I. CLAIM REJECTIONS - 35 USC § 103

The Examiner rejects claims 1-4, 6, and 7 under 35 U.S.C. § 103(a) as being unpatentable over admitted prior art ("Admission") in view of *Linden, Jr. et al.* (U.S. Patent No. 5,195,572).

The Examiner alleges that, regarding claim 1, the Admission in the specification (pages 2-4 and Figure 1) teaches a transducer mount 100 including a base 130, a holder sleeve 140 or first sleeve extending from the base, and a union sleeve 150 or second sleeve engaged with the holder sleeve. The Examiner alleges that the prior art lacks the first sleeve slidably engageable and removable from the second sleeve. The Examiner alleges that *Linden* teaches a sleeve formed of two slidably engagable parts 32 and 34 as an improvement over a sleeve formerly made as one part 10. The Examiner alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a sleeve of two parts in order to allow separation of only a portion of the device from the machine rather than the entire device.

The Admission teaches an ultrasonic transducer mount including a base. Extending from the base is a holder sleeve. The holder sleeve holds a transducer holder that, in turn, holds a transducer. On the outside of holder sleeve are threads on an increased outer diameter section that engage a union nut. The Admission refers to the increased outer diameter portion as the union sleeve although it is actually an extension of the holder sleeve itself. The union nut is part of an extractor tool that is used to remove the transducer holder and the transducer from the holder sleeve of the transducer mount. The holder sleeve is never removed from the transducer mount base and does not incur any premature wear and tear during normal operation that would cause a need for a portion of it to be replaced separately from the mount base.

Linden discloses a two-piece shot sleeve for use in a die casting machine. The two-piece sleeve includes first and second cylindrical sleeve sections that are removably axially secured together. *Linden* explains that typical die cast machine shot sleeves are one-piece cylinders with a pour hole for the molten metal extending through the top of the cylinder near the end of the cylinder away from the die cast machine. The molten metal is poured into the pour hole and into an internal passage where it is then injected into the die machine. The problem with typical shot sleeves according to *Linden* is that after a number of pourings, a pour section depression develops on the surface of the internal passage underneath the pour hole due to the initial contact from the molten metal. As the depression increases in size, it eventually causes problems with the integrity of the operation of the shot sleeve and the entire sleeve must be replaced. *Linden's* invention is driven by the need to economically replace the cylindrical shot sleeve due to premature wear and tear of only a portion of the shot sleeve that eventually causes the entire shot sleeve to fail. *Linden's* two-piece shot sleeve allows the user to replace only the second cylindrical sleeve section that contains the pour hole instead of the entire shot sleeve. Therefore, *Linden* saves the user money by only requiring replacement of a portion of the shot sleeve instead of the entire shot sleeve. Thus, *Linden* only teaches a sleeve formed of two slidingly engagable parts as an improvement over a sleeve formerly made as one part to the extent that it would be more cost effective to only have to replace the section of the sleeve that fails prematurely rather than the entire sleeve.

The Examiner alleges that it would have been obvious to one having ordinary skill in the art to form a sleeve of two parts in order to allow separation of only a portion of the device from the machine rather than the entire device. The Examiner's allegation assumes that there is some

motivation to combine the teachings of *Linden* with the transducer mount in the Admission. However, there is no motivation to combine the Admission with *Linden*. As stated above, *Linden* teaches a shot sleeve with two parts to allow separation of only a portion of the sleeve from the machine for repair or replacement. The Admission teaches a holder sleeve for an ultrasonic transducer mount. Shot-sleeves and ultrasonic transducer mounts are completely non-analogous art because they do not serve any common purposes. In addition, *Linden's* motivation is to be able to economically replace a portion of the sleeve that fails prematurely due to the initial contact with the molten metal. The Admission, however, never discloses replacing or a need to replace the transducer holder sleeve separate from the mount itself. Instead, the Admission teaches attaching a union nut to the threads of holder sleeve as part of attaching an extractor tool for removing a transducer holder and transducer from the holder sleeve, *not for removing the holder sleeve itself*. The Admission also never discloses having to replace the holder sleeve separately from the mount itself due to premature wear of a portion of the holder sleeve. Even more so, the Admission and *Linden* actually teach away from each other because the Admission never teaches replacing the holder sleeve while *Linden* is entirely based on the need to replace the shot sleeve. Therefore, claim 1 would not be obvious under 35 U.S.C. § 103 over the Admission in view of *Linden*. Applicant thus respectfully submits that claim 1 is in condition for allowance.

As for claim 2, the Examiner alleges that the Admission shows the base includes a top surface, at least one side surface, and a bottom surface.

Applicant repeats its statements made above for claim 1. As claim 2 depends on claim 1, claim 2 would not be obvious under 35 U.S.C. § 103 over the Admission in view of *Linden*. Applicant thus respectfully submits that claim 2 is in condition for allowance.

As for claim 3, the Examiner alleges that the Admission shows slots on the base top surface with slot holes extending through the base and screws fixedly engaging the slot holes for attaching the transducer mount to a housing.

Applicant repeats its statements made above for claims 1 and 2. As claim 3 depends on claim 2, claim 3 would not be obvious under 35 U.S.C. § 103 over the Admission in view of *Linden*. Applicant thus respectfully submits that claim 3 is in condition for allowance.

As for claim 4, the Examiner takes Official Notice that it is widely known in the art to provide slits, slots, and grooves in various devices and one of ordinary skill would have known of their advantageous use in allowing easy separation by prying with a screwdriver.

Applicant repeats its statements made above for claims 1 and 2. As claim 4 depends on claim 2, claim 4 would not be obvious under 35 U.S.C. § 103 over the Admission in view of *Linden*. Applicant thus respectfully submits that claim 4 is in condition for allowance.

As for claim 6, the Examiner alleges that a sleeve that is a thin walled cylinder is considered to inherently include an inner and outer diameter. The Examiner alleges that the first and second sleeves taught therefore include first sleeve inner diameter and outer diameter, as well as second sleeve inner diameter and outer diameter.

Applicant cancels claim 6.

As for claim 7, the Examiner alleges that the union sleeve 150 includes threads 151 for attaching an extractor tool for removing a transducer and a transducer holder from the holder sleeve 130 inner diameter.

Applicant repeats its statements made above for claim 1. As claim 7 depends on claim 1, claim 7 would not be obvious under 35 U.S.C. § 103 over the Admission in view of *Linden*. Applicant thus respectfully submits that claim 7 is in condition for allowance.

II. ALLOWABLE SUBJECT MATTER

The Examiner states that claims 5, 8, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant repeats its statements made above for claims 1 and 2. As claims 5, 8, and 9 depend on claims 1 and 2, claims 5, 8, and 9 would not be obvious under 35 U.S.C. § 103 over the Admission in view of *Linden*. Applicant thus respectfully submits that claims 5, 8, and 9 are in condition for allowance.

The Examiner states that claims 10-12 are allowed.

CONCLUSION

Applicant respectfully requests reconsideration and allowance of the pending claims. If the Examiner feels that a telephone conference would expedite the resolution of this case, he is respectfully requested to contact the undersigned.

In the course of the foregoing discussions, Applicant may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. There may also be other distinctions between the claims and the prior art that have yet to be raised, but that may be raised in the future.

Respectfully submitted,

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MARKED-UP VERSIONS OF AMENDED CLAIMS

6. (Cancelled) The transducer mount of claim 1 wherein the transducer mount includes a first sleeve inner diameter, a first sleeve outer diameter, a second sleeve inner diameter, and a second sleeve outer diameter.
7. (Amended) The transducer mount of claim 1 [6] wherein the second sleeve outer diameter includes screw threads for attaching an extractor tool for removing a transducer and a transducer holder from the first sleeve inner diameter.
8. (Amended) The transducer mount of claim 1 [6] wherein the first sleeve outer diameter includes at least one first sleeve flat surface and the second sleeve inner diameter includes at least one second sleeve flat surface that engages the at least one first sleeve flat surface for preventing relative rotation between the first sleeve and the second sleeve.
9. (Amended) The transducer mount of claim 1 [6] wherein the transducer mount includes a groove located on the first sleeve outer diameter and a counter bore located on a second sleeve outer face, the outer face located on an end of the second sleeve opposite the base, and the transducer mount further comprises a retaining ring that engages both the groove and counter bore for retaining the second sleeve in engagement with the first sleeve.
13. (New) The transducer mount of claim 1 further comprising retaining brackets engaged with the mount base for retaining a mount cover.

14. (New) The transducer mount of claim 2 further comprising retaining brackets engaged with the mount base for retaining a mount cover.

15. (New) The transducer mount of claim 14 wherein the retaining brackets engage channels on the base top surface, the channels having channel holes extending into the base.

16. (New) The transducer mount of claim 15 wherein the retaining brackets comprise a first hole through a first end and a second hole through a second end, the mount further comprising first screws for attaching the bracket first ends to the base channels and second screws for attaching the mount cover to the retaining bracket second end.